

§ 1918.66

29 CFR Ch. XVII (7–1–97 Edition)

TABLE G–10—SAFE WORKING LOADS FOR
SHACKLES—Continued
[In tons of 2,000 pounds]

Material size (inches)	Pin diameter (inches)	Safe working load
5/8	3/4	2.2
3/4	7/8	3.2
7/8	1	4.3
1	1 1/8	5.6
1 1/8	1 1/4	6.7
1 1/4	1 3/8	8.2
1 5/8	1 1/2	10.0
1 1/2	1 5/8	11.9
1 3/4	2	16.2
2	2 1/4	21.1

(b) Screw pin shackles provided by the employer and used aloft, except in cargo hook assemblies, shall have their pins moused.

§ 1918.66 Hooks other than hand hooks.

(a) The manufacturer's recommendations shall be followed in determining the safe working loads of the various sizes and types of specific and identifiable hooks. All hooks for which no applicable manufacturer's recommendations are available shall be tested to twice the intended safe working load before they are initially put into use. The employers shall maintain a record of the dates and results of such tests.

(b) Loads shall be applied to the throat of the hook since loading the point overstresses and bends or springs the hook.

(c) Hooks shall be inspected periodically to see that they have not been bent by overloading. Bent or sprung hooks shall not be used.

(d) Teeth of case hooks shall be kept in good condition.

(e) Jaws of patent clamp type plate hooks shall be kept in safe condition so that they will grip plates securely.

§ 1918.67 Pallets.

(a) Pallets shall be of such material and construction and so maintained as to safely support and carry loads being handled on them. Fastenings of reusable pallets shall be bolts and nuts, drive screws (helically threaded nails), annular threaded nails or fastenings of equivalent strength.

(b) Wing or lip type pallets hoisted by means of bar bridles shall have an over-

hanging wing or lip at least 3 inches long.

(c) Loaded pallets which on visual examination do not meet the requirements of this section, shall be placed on pallets meeting the requirements before being hoisted into or out of the vessel.

(d) Bridles used to handle flush end or box type pallets shall be of such a design as to prevent them from becoming disengaged from the pallet under load.

§ 1918.68 Chutes, gravity conveyors and rollers.

(a) Chutes used in the manual handling of cargo shall be of adequate length and strength for the use to which they are put and shall be kept free of splinters and sharp edges.

(b) Chutes shall be equipped with sideboards of sufficient height to prevent cargo from falling off.

(c) Chutes and gravity roller sections shall be firmly placed or secured to prevent displacement.

(d) Gravity rollers shall be of sufficient strength for the weight of material which is placed upon them. Rollers shall be locked in position to prevent them from falling or jumping out of the frame.

(e) Frames shall be kept free of burrs and sharp edges.

(f) When necessary for safe operation, provision shall be made for braking objects at the delivery end of the roller or chute.

§ 1918.69 Powered conveyors.

(a) Readily accessible stop controls shall be provided for use in an emergency. Whenever the operation of any power conveyor requires personnel to work in the immediate vicinity of the conveyor, the conveyor controls shall not be left unattended while the conveyor is in operation.

(b) Electric motors and controls on grain trimmers shall be of the explosion-proof type approved by the Underwriters' Laboratories, Incorporated, for use in hazardous locations, Class II, Group G.

(c) All conveyor and trimmer drives which create a hazard shall be adequately guarded.

(d) Each grain trimmer shall have a control box located on the weather deck in close proximity to the spout feeding the trimmer.

(e) Power cables between the deck control box and the grain trimmer shall be used only in continuous lengths without splice or tap between connections.

§ 1918.70 Portable stowing winches.

(a) Portable stowing winches shall be used only with the knowledge and consent of the officer in charge of the vessel.

(b) Portable stowing winches used in connection with operations shall at all times be properly secured to prevent shifting.

(c) When internal combustion powered stowing winches are located below the weather deck or in other enclosed spaces, the exhaust shall be led topside to open air and away from the hatch opening.

§ 1918.71 Rain tents.

When using rain tents, lanyards shall be secured to padeyes or other fixed structures of the vessel which are strong enough or to objects which are heavy enough to withstand the breaking stress of all lanyards attached.

§ 1918.72 Tools.

(a) *General.* Employers shall not issue or permit the use of visibly unsafe tools.

(b) *Portable electric tools.* (1) Portable electric tools which are held in the hand shall be equipped with switches of a type which must be manually held in a closed position.

(2) All portable, power-driven circular saws shall be equipped with guards above and below the base plate or shoe. The upper guard shall cover the saw to the depth of the teeth, except for the minimum arc required to permit the base to be tilted for bevel cuts. The lower guard shall cover the saw to the depth of the teeth, except for the minimum arc required to allow proper retraction and contact with the work. When the tool is withdrawn from the work, the lower guard shall automatically and instantly return to the covering position.

§ 1918.73 Mechanically-powered vehicles used aboard vessels.

(a) All automotive equipment shall be maintained in good working order and safety devices shall not be removed or made inoperative, except as otherwise provided.

(b) *Overhead guards for fork lift trucks.*

(1) Except as noted in paragraph (b)(5) of this section, fork lift trucks shall be equipped with overhead guards securely attached to the machines. The guards shall be of such design and construction as to protect the operator from boxes, cartons, packages, bagged material, and other similar individual items of cargo which may fall from the load being handled or from stowage.

(2) The guard shall be of such construction that it does not interfere with good visibility, but openings in the top of the guard must not exceed six inches in one of the two dimensions, width or length. Larger openings may be permitted provided no opening is larger than the smallest unit of cargo that is likely to fall on the guard.

(3) The guard shall be large enough to extend over the operator in all normal circumstances of truck operation, including forward tilt.

(4) In fork lift trucks equipped with a single tilt cylinder, provision shall be made so that failure of this cylinder or associated parts will not cause the overhead guard to injure the operator.

(5) The overhead guard may be removed only at times when the construction of the truck is such that the presence of such a guard would prevent the truck from entering working spaces, and if the operator cannot be injured by low overhead obstructions.

(c) *Guards for bulk cargo-moving vehicles.* (1) Every crawler type, rider operated, bulk cargo-moving vehicle shall be equipped with an operator's guard of such design and construction as to protect the operator, when seated, against injury from contact with a projecting overhead.

(2) Guards and their attachment points shall be so designed as to be able to withstand, without excessive deflection, a load applied horizontally at the operator's shoulder level equal to the drawbar pull of the machine.